

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 October 2004 (21.10.2004)

PCT

(10) International Publication Number
WO 2004/089480 A1

(51) International Patent Classification⁷: **A63B 57/00**

(21) International Application Number:
PCT/SG2003/000080

(22) International Filing Date: 14 April 2003 (14.04.2003)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (*for all designated States except US*):
JUI-SHENG (SINGAPORE) PTE LTD [SG/SG];
152 Paya Lebar Road #05-03, Citipoint Industrial Complex,
Singapore 409020, 409020 Singapore (SG).

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): **LEE, Whatt Kiah**
[SG/SG]; c/o JUI-SHENG (SINGAPORE) PTE LTD, 152
Paya Lebar Road #05-03, Citipoint Industrial Complex,
Singapore 409020, 409020 Singapore (SG).

(74) Agent: **SIM, Yuan Meng, Andrew**; c/o **SHOOK LIN &
BOK**, 1 Robinson Road, #18-00, AIA Tower, Singapore
048542, 048542 Singapore (SG).

(81) Designated States (*national*): AB, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, YU, ZA, ZM, ZW.

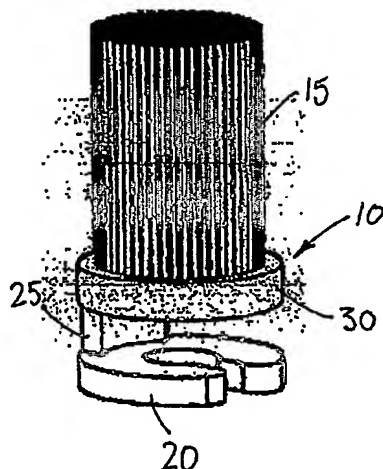
(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **DEVICE FOR SUPPORTING A GOLF BALL**



(57) Abstract: A device for supporting a golf ball whilst a golfer is playing a tee shot. The device comprises: support means (10) for receiving a golf tee (A) and locating the device with respect to the golf tee, and a plurality of bristles (15), extending upwardly from an upper surface (30) of the support means (10), on which a golf ball can be rested.

WO 2004/089480 A1

BEST AVAILABLE COPY

2/pcts
JC20 Rec'd PCT/PTO 14 OCT 2005DEVICE FOR SUPPORTING A GOLF BALLField of the Invention

5 The present invention relates to devices for supporting a golf ball whilst a golfer is playing a tee shot.

Background to the Invention

10

When playing a game of golf, the player begins each hole with a tee shot. A device is often employed for this shot to elevate the golf ball slightly above the level of the ground immediately about the position of the ball.

15

Traditionally, this device is a slender wooden or plastic shaft known as a tee. The tee has a pointed end which is pushed into the ground at the desired location.

20 The other end of the tee widens to form a head with a concave top surface on which a golf ball can be rested.

While such tees perform their intended function, there are a number of disadvantages with these types of tees.

25

The golf tee is often struck as the golf ball is struck by the golf club. This can result in the tee being dislodged from the ground and potentially lost, and/or being damaged or broken. The disturbance of the golf tee can result in a reduction in shot accuracy, and/or distance traveled by the golf ball.

30

U.S. Patent 6,053,822 discloses an improved golf tee comprising a shaft with point and a widened head. A golf ball can be supported by a ring of bristles extending from the head of the shaft.

35

- 2 -

This golf tee attempts to overcome the disadvantage of standard golf tees wherein the disturbance of the tee during the shot affects the shot accuracy or distance.

However, this device is still prone to being damaged or broken as occurs with standard golf tees. As the golf tee disclosed in U.S. Patent 6,053,822 is significantly more expensive than a regular golf tee. Thus, this golf tee is not particularly desirable alternative to standard golf tees.

Summary of the Invention

15

According to the present invention, there is provided a device for supporting a golf ball comprising: support means for receiving a golf tee and locating the device with respect to the golf tee, and a plurality of bristles, extending upwardly from an upper surface of the support means, on which the golf ball can be rested.

Preferably, the support means has fastening means for releasably attaching the device to the golf tee.

Preferably, the fastening means is a C-shaped section which can clip the device to the golf tee.

Thus, if the shaft of the golf tee were to be damaged during a shot, the device would be able to be detached from the damaged tee and attached to a fresh tee.

Preferably, the plurality of bristles are generally evenly distributed across the upper surface of the support means.

- 3 -

Preferably, the length of the plurality of bristles are varied such that the free ends of the bristles form a depression towards the centre of the plurality of bristles.

5

Thus, the golf ball can be stably supported on the free ends of the bristles.

Brief Description of the Drawings

10

In order that the invention may be more readily understood, embodiments will now be described, by way of example only, with reference to the accompanying drawings, in which:

15

Figure 1: is a top view of a golf tee adaptor according to a first embodiment;

Figure 2: is an section view of the golf tee adaptor of figure 1, connected to a golf tee;

20

Figure 3: is a bottom view of the golf tee adaptor of figure 1;

Figure 4: is a perspective view of the golf tee adaptor in figure 1;

25

Figure 5: is a perspective view of the golf tee adaptor in figure 1; and

Figure 6: is a perspective view of the golf tee adaptor in figure 1.

Detailed Description

Figures 1 to 6 show a golf tee adaptor 1 which has a support 10. The support 10 has a disc shaped head 30 which, when the golf tee adaptor 1 is attached to a golf tee A, rests on the top of the golf tee A.

35

To locate the golf tee adaptor 1 on a golf tee A, the

- 4 -

support 10 has a C-shaped clip 20. The clip 20 is joined to the head 30 by a stem member 25. Stem member 25 is proportioned such that the head of golf tee A can be located between the head 30 and the clip 20.

5

Clip 20 is flexible so that a golf tee A can be inserted or removed. Once a golf tee A is in place, the clip 20 surrounds the shaft of a golf tee A, to retain the tee in position.

10

A set of bristles 15, which are attached to the head 30, provide support for a golf ball (not shown). The bristles 15 are attached to the head 30 on the opposite face to the clip 20. The bristles 15 are evenly distributed through a circular area located on the upper surface of the head 30.

When the golf tee adaptor 1 is attached to a golf tee A, and pushed into the ground, the bristles 15 are oriented upwards. To aid the support of a golf ball (not shown) on the bristles 15, the uppermost ends of the bristles 15 are cut to create a concave surface 16.

It will be understood to persons skilled in the art of the invention that many modifications may be made without departing from the scope of the invention.

- 5 -

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A device for supporting a golf ball comprising:
 support means for receiving a golf tee and
5 locating the device with respect to the golf tee, and
 a plurality of bristles, extending upwardly from
 an upper surface of the support means, on which the golf
 ball can be rested.
- 10 2. A device as claimed in claim 1, wherein the
 support means has fastening means for releasably attaching
 the device to the golf tee.
3. A device as claimed in claim 2, wherein the
15 fastening means is a C-shaped section which can clip the
 device to the golf tee.
4. A device as claimed in any one of the preceding
 claims, wherein the plurality of bristles are generally
20 evenly distributed across the upper surface of the support
 means.
5. A device as claimed in claim 4, wherein the
 length of the plurality of bristles are varied such that
25 the free ends of the bristles form a depression towards
 the centre of the plurality of bristles.

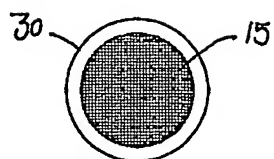


FIGURE 1

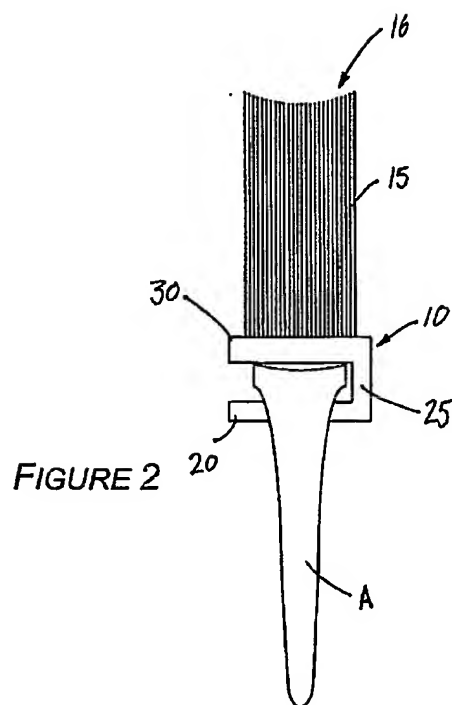


FIGURE 2

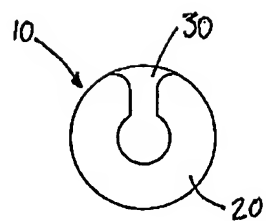


FIGURE 3

2/2

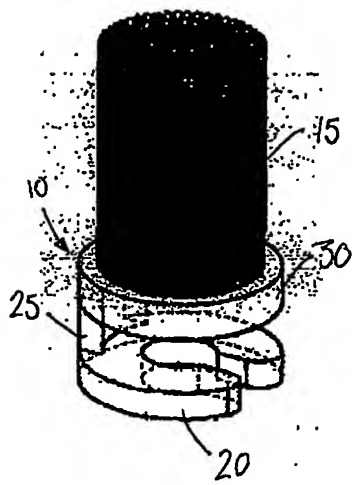


FIGURE 4

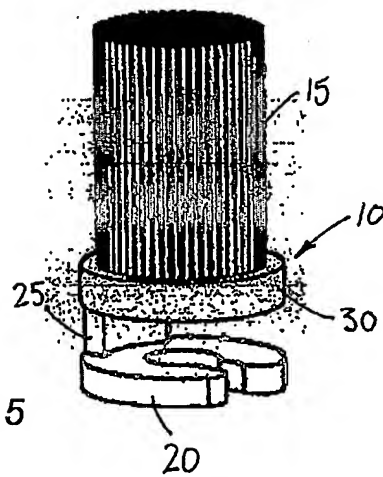


FIGURE 5

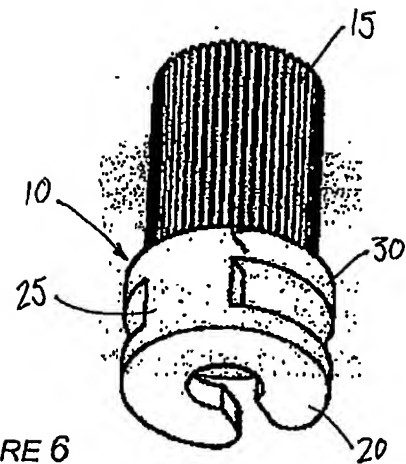


FIGURE 6

INTERNATIONAL SEARCH REPORT

International application No.
PCT/SG03/00080

A. CLASSIFICATION OF SUBJECT MATTER					
Int. CL. ⁷ : A63B 57/00					
According to International Patent Classification (IPC) or to both national classification and IPC					
B. FIELDS SEARCHED					
Minimum documentation searched (classification system followed by classification symbols) REFER TO THE ELECTRONIC DATABASE CONSULTED BELOW					
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched					
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI + key words (a63b-057/ic, tee, golf, support, rest, bristle, hair, lie, etc)					
C. DOCUMENTS CONSIDERED TO BE RELEVANT					
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.			
X	US 6454669 B1 (JAMES) 24 September 2002 See entire document	1-5			
X	US 4645208 A (MORABETO) 24 February 1987 See entire document	1-5			
X	US 6053822 A (KOLODNEY et al) 25 April 2000 See entire document	1-5			
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex					
<p>* Special categories of cited documents:</p> <table style="width: 100%;"> <tr> <td style="width: 33%;"> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> </td> <td style="width: 33%;"> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p> </td> <td style="width: 33%;"></td> </tr> </table>			<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p>	
<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p>				
Date of the actual completion of the international search 25 June 2003		Date of mailing of the international search report 30 JUN 2003			
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustralia.gov.au Facsimile No. (02) 6285 3929		Authorized officer Mr. SWAYAM CHINTAMANI Telephone No : (02) 6283 2202			

INTERNATIONAL SEARCH REPORT

International application No.
PCT/SG03/00080

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 20211613 U1 (KOPPERS) 6 February 2003 See entire document	1-5
X	WO 00/45905 A1 (CROUSE) 10 August 2000 See entire document	1-5
X	FR 2730646 A1 (POLLAUD DULIAND JACKY) 23 August 1996 See entire document	1-5

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/SG03/00080

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report			Patent Family Member			
US	6454669	NONE				
US	4645208	NONE				
US	6053822	NONE				
DE	20211613	NONE				
WO	200045905	AU 200021240 NZ 513875	CA 2361508	EP 1150748		
FR	2730646	NONE				
						END OF ANNEX

This Page is inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☒ BLACK BORDERS
- ☒ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☒ FADED TEXT OR DRAWING
- ☒ BLURED OR ILLEGIBLE TEXT OR DRAWING
- ☒ SKEWED/SLANTED IMAGES
- ☐ COLORED OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REPERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images problems checked, please do not report the problems to the IFW Image Problem Mailbox